



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,087	10/22/2003	Morton Curtis SR.	CUR-1001-US	4789

24923 7590 10/08/2004  
PAUL S MADAN  
MADAN, MOSSMAN & SRIRAM, PC  
2603 AUGUSTA, SUITE 700  
HOUSTON, TX 77057-1130

EXAMINER

JIANG, CHEN WEN

ART UNIT PAPER NUMBER

3744

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/691,087	Applicant(s) CURTIS, MORTON	
	Examiner Chen-Wen Jiang	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20031022</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,6 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hile (U.S. Patent Number 4,389,853).

Hile discloses a method and an apparatus for controlling an air conditioning unit with multi-speed fan and economizer. Referring to Figs. 1 and 2, the enthalpy control 49 senses the temperature and potentially the humidity of the ambient air and determines whether or not the ambient air may be circulated. The system comprises compressors 14,16, condenser 18, evaporator 20, damper 52 and supply fan 22. The fan is operated at a reduced speed if ambient air conditions do not warrant desired conditions from enthalpy control 49.

3. Claims 1,2,4,13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Helt (U.S. Patent Number 6,282,910).

Helt discloses an indoor blower variable speed drive for reduced airflow. Referring to Figs. 1 and 2, the air conditioning unit 30 comprising compressor, condenser, evaporator, blower 34 and controller 55 is installed in the building 10. The reduced airflow can be used in a pre-cooling mode. The control 55 controls the overall operation of air-handler 25 according to the algorithm of Fig. 2. The pre-cool dehumidification made may continue until the pre-cool timer elapses.

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7,9,11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helt (U.S. Patent Number 6,282,910) in view of Hile (U.S. Patent Number 4,389,853).

Helt discloses an indoor blower variable speed drive for reduced airflow. Referring to Figs.1 and 2, the air conditioning unit 30 comprising compressor, condenser, evaporator, blower 34 and controller 55 is installed in the building 10. The reduced airflow can be used in a pre-cooling mode. The control 55 controls the overall operation of air-handler 25 according to the algorithm of Fig.2. The pre-cool dehumidification made may continue until the pre-cool timer elapses. Helt discloses the invention substantially as claimed. However, Helt does not disclose a damper to have outside air. Hile discloses a damper 52 in the same field of endeavor for the purpose of having fresh air. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Helt with a damper in view of Hile so as to improve air quality.

6. Claims 7,9,10,11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helt (U.S. Patent Number 6,282,910) in view of Obler (U.S. Patent Number 4,210,278).

Helt discloses an indoor blower variable speed drive for reduced airflow. Referring to Figs.1 and 2, the air conditioning unit 30 comprising compressor, condenser, evaporator, blower 34 and controller 55 is installed in the building 10. The reduced airflow can be used in a pre-

cooling mode. The control 55 controls the overall operation of air-handler 25 according to the algorithm of Fig.2. The pre-cool dehumidification made may continue until the pre-cool timer elapses. Helt discloses the invention substantially as claimed. However, Helt does not disclose a damper to have outside air and a humidistat within return air duct. Obler discloses a damper 118 and sensing mechanisms 62,64,66,68,70 and 72 in the same field of endeavor for the purpose of having fresh air and sensing return air humidity. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Helt with a damper and sensor in view of Obler so as to improve air quality.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hile (U.S. Patent Number 4,389,853) in view of Espinosa (U.S. Patent Number 4,757,694).

Hile discloses the invention substantially as claimed. However, Hile does not disclose speed control comprising a time delay circuit and a single pole, double throw delay. Espinosa discloses a time delay circuit and a single pole, double throw delay in the same field of endeavor for the purpose of speed control. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the apparatus of Hile with a time delay circuit and a single pole, double throw delay in view of Espinosa so as to control speed.

8. In regard to claims 3,5,12,15 and 16. The reference discloses the reduced speed and timer claimed except for the range of reduced speed and pre-cooling time of the blower. It is not patentable, however, to discover the optimum of workable ranges of the lubricant flow by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955), MPEP Section 2144.05(IIA).

Art Unit: 3744

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chen-Wen Jiang whose telephone number is (703) 308-0275 (571 272-4809 after 11/20/2004). The examiner can normally be reached on Tuesday-Friday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel can be reached on (703) 308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chen-Wen Jiang  
Primary Examiner

A handwritten signature in black ink, appearing to be 'C. Jiang', written over a horizontal line.